

Workforce Training Results

An Evaluation of Washington State's Workforce Development System

EXECUTIVE SUMMARY

2000

Washington
State
Workforce
Training and
Education
Coordinating
Board



WORKFORCE TRAINING AND EDUCATION COORDINATING BOARD

The Vision

The Workforce Training and Education Coordinating Board is Washington State's valued and trusted source of leadership for the workforce development system.

Mission Statement

The Workforce Training and Education Coordinating Board's mission is to bring business, labor, and the public sector together to shape strategies to best meet the state and local workforce and employer needs of Washington in order to create and sustain a high skill, high wage economy.

To fulfill this Mission, Board members, with the support of staff, work together to:

- Advise the Governor and Legislature on workforce development policy.
- Promote a system of workforce development that responds to the lifelong learning needs of the current and future workforce.
- Advocate for the non-baccalaureate training and education needs of workers and employers.
- Facilitate innovations in workforce development policy and practices.
- Ensure system quality and accountability by evaluating results and supporting high standards and continuous improvement.

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Workforce Training Results—2000

Executive Summary

Introduction

This is the third biennial outcome evaluation of Washington's workforce development system. It analyzes the results of nine of the state's largest workforce development programs plus employer-provided training. These programs account for 90 percent of public expenditures in the state workforce development system. The report examines outcomes for participants who left programs during the period from July 1, 1997, to June 30, 1998.

The purpose of the evaluation is to report the results of workforce training and to recommend areas for improvement. The report discusses the results of the programs in terms of the seven desired outcomes for the state training system established by the Workforce Training and Education Coordinating Board (Workforce Board). These desired outcomes are not static targets but are conditions that should be increasingly true for all people.

Findings are based on the following sources of data:

- Program records on almost 65,000 individuals who left one of these programs during the 1997-98 school year.¹

- Mail survey responses from approximately 4,000 employers during the fall of 1999.
- Telephone survey responses from 6,791 former 1997-98 participants during the fall of 1999.

¹ These records include information on all the participants leaving these programs with two exceptions—the private career schools and secondary vocational-technical education programs. Data for the private career schools are based on a voluntary sample of 19 schools. This sample includes some of the largest private career schools, and it includes roughly 26 percent of the students leaving programs during the 1997-98 school year. Information on secondary vocational-technical education is based on a voluntary sample of 109 school districts (47 percent of all districts) and 3 skills centers.

Seven Desired Outcomes for the State Workforce Development System

- **Competencies:** Washington's workforce possesses the skills and abilities required in the workplace.
- **Employment:** Washington's workforce finds employment opportunities.
- **Earnings:** Washington's workforce achieves a family-wage standard of living from earned income.
- **Productivity:** Washington's workforce is productive.
- **Reduced Poverty:** Washington's workforce lives above poverty.
- **Customer Satisfaction:** Workforce development participants and their employers are satisfied with workforce development services and results.
- **Return on Investment:** Workforce development programs provide returns that exceed program costs.*

* This last outcome is the subject of a net-impact and cost-benefit evaluation conducted by the Workforce Board every four years.

- Computer matches with the Washington State Employment Security Department employment records from five states (Washington, Idaho, Montana, Alaska, and Oregon) and military personnel records.
- Computer matches with enrollment data from community and technical colleges, public four-year institutions, and several private colleges.

It is important to note that, except for secondary vocational education, *the participant results presented in this report are for all participants, not just those who completed their program.* Participants are defined as individuals who entered a program and demonstrated the intent to complete a sequence of program activities. The number of participants who leave their program before completion affects program results.

The Three Training Program Clusters
based on participant characteristics

1. Programs Serving Adults
2. Programs Serving Adults With Barriers to Employment
3. Programs Serving Youth

Throughout this report, results are grouped by these three clusters.

Readers are also cautioned to not make improper comparisons among programs or between the previous and current evaluation results. Some evaluation methodologies were improved and different programs serve different populations for different purposes.

Summary of Findings

Program and Participant Characteristics

Figure 1 briefly describes the nine programs included in this report.

The training programs are grouped into three clusters based on participant characteristics: (1) Programs Serving Adults; (2) Programs Serving Adults With Barriers to Employment; and (3) Programs Serving Youth.

Throughout this report, results are grouped by these three clusters.

It is very important to consider the demographic characteristics of program participants. The single most important factor in determining program results is the characteristics of the individuals who entered the program. Programs serving participants who have significant work experience and basic skills can be expected to have higher labor market outcomes than those serving participants with little work experience and low levels of literacy.

FIGURE 1

Programs Included in *Workforce Training Results—2000*

Programs for Adults

Community and Technical College Job Training: Training and education for a Vocational Associate of Arts Degree or a Vocational Certificate and also dislocated worker retraining. This training does not include classes taken by current workers to upgrade skills for their current job, nor does it include the other two mission areas of the colleges—academic transfer education and basic skills instruction.

Private Career Schools: Training provided by private businesses for students intending to complete vocational certificates or degrees. The schools are licensed by the Workforce Board or, if they grant a degree, by the Higher Education Coordinating Board.

Apprenticeship: Training that combines classroom instruction with paid, on-the-job training under the supervision of a journey-level craftsman or trade professional. Apprenticeships are governed by the Washington State Apprenticeship and Training Council and administered by the Department of Labor and Industries.

Job Training Partnership Act Title III: Federal employment training program for dislocated workers. The program was administered by the Washington State Employment Security Department at the state level and 12 service delivery areas at the local level, each headed by a private industry council.*

Program Serving Adults With Barriers

Adult Basic Skills Education: Literacy and math instruction for adults who are at a high school level or below. Includes courses in four categories: Adult Basic Education for adults whose skills are at or below the eighth-grade level; English-as-a-Second Language; GED Test Preparation; and High School Completion for adults who want to earn an adult high school diploma. Instruction is provided by community and technical colleges and other organizations such as libraries and community-based organizations, although this evaluation is limited to colleges.

Job Training Partnership Act Title II-A: Federal employment and training program for low-income adults aged 22 and older who experience significant barriers to school or employment. The program was administered by the Washington State Employment Security Department at the state level and by 12 service delivery areas at the local level, each headed by a private industry council.*

Programs Serving Youth

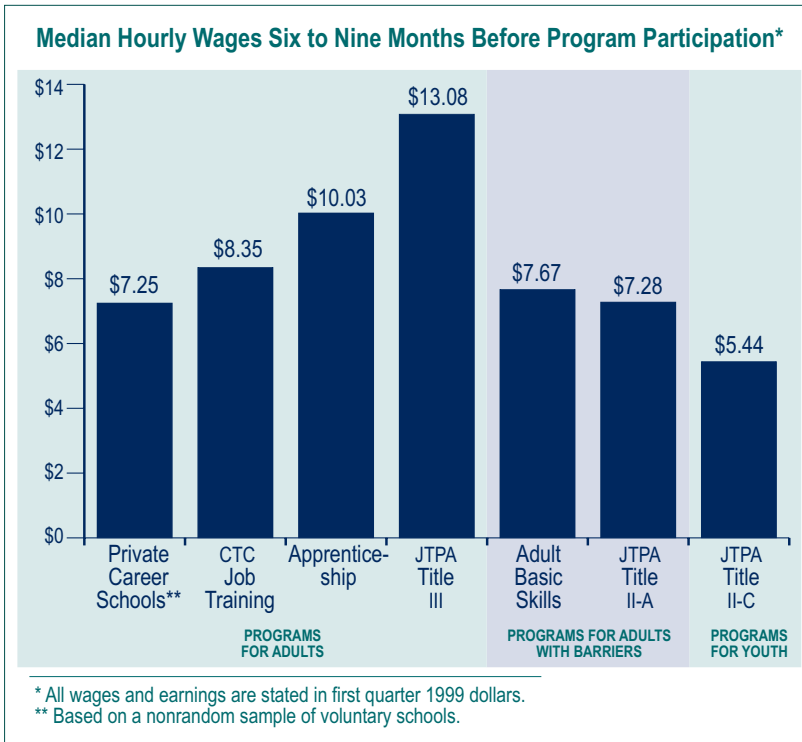
Secondary Vocational Education: Training and vocational education in high schools and vocational skills centers in agriculture, business, marketing, family and consumer sciences, technology, trade and industry, and health occupations.

Job Training Partnership Act Title II-C: Federal employment and training program for low-income youth 16 to 21 years old who experience significant barriers to school or employment. The program was administered by the Washington State Employment Security Department at the state level and by 12 service delivery areas at the local level, each headed by and private industry council.*

Job Training Partnership Act Title II-B: Federal employment and training program for low-income youth 14 to 21 years old who experience significant barriers to school or employment. The program provided employment for approximately eight weeks in the summer and remedial education. The program was administered by the Washington State Employment Security Department at the state level and by 12 service delivery areas at the local level, each headed by a private industry council.*

* This report is based on Job Training Partnership Act programs in place during the period from July 1, 1997, to June 30, 1998. On July 1, 2000, the Workforce Investment Act replaced the Job Training Partnership Act.

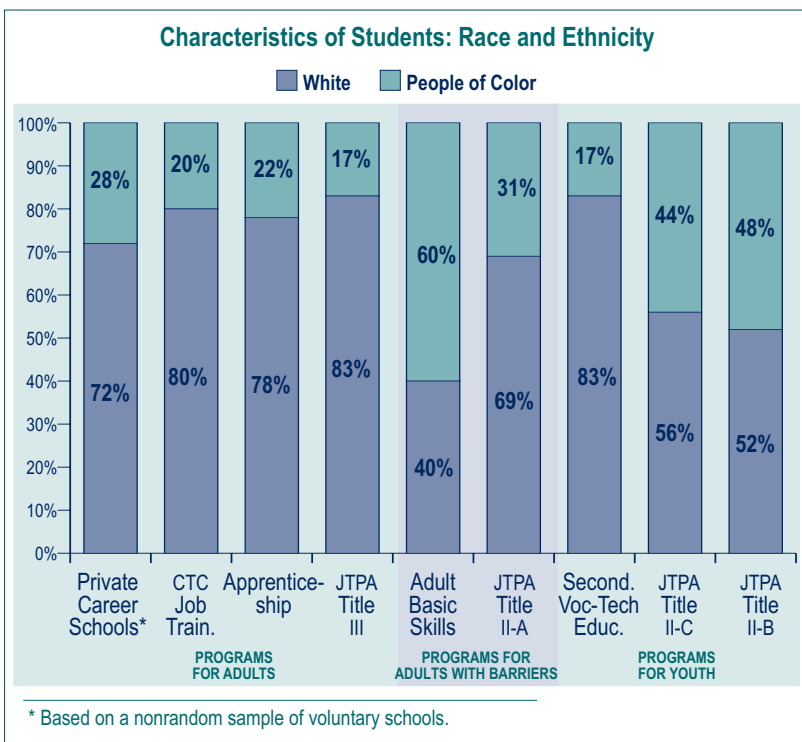
FIGURE 2



The preprogram wages of the participants reflect the different characteristics of the three clusters of program participants. Most secondary vocational education students and Job Training Partnership Act (JTPA) II-B participants did not have reported employment prior to entering their program. Among those who were employed three quarters prior to entering a program, the median wage was lowest for JTPA Title II-C (youth) participants and highest for Title III (dislocated worker) participants. (See Figure 2.)

The racial and ethnic composition of participants in every program was more diverse than the state's general population. Diversity was greatest in the cluster of programs serving adults with barriers to employment and in the JTPA Title II-B and II-C programs that target youth with barriers to employment. (See Figure 3.) Eighty-three percent of the state's population is white (non-Hispanic). Among JTPA Title II-A participants, for example, only 69 percent were white.

FIGURE 3



There were some changes from the composition of 1995-96 participants studied by our previous evaluation. The proportion of JTPA Title II-A participants who were people of color declined substantially, falling from 38 to 31 percent. The proportion of secondary vocational-technical education and Title II-C participants who were people of color increased because of substantial increases in the numbers of Hispanic youth served. The proportion of JTPA Title II-C participants who were nonwhite increased from 35 to 44 percent.

Program Results

Competency Gains

Desired Outcome

Washington's workforce possesses the skills and abilities required in the workplace.

Based on survey results, most participants received job-specific skills training as part of their program. (See Figure 4.) However, not all program participants received it. Adult Basic Skills Education, by the definition used in the study, does not include vocational training and, therefore, is not included in Figure 4. JTPA programs offer a variety of job search assistance and basic skills instruction in addition to job-specific skills training. Between 24 and 32 percent of JTPA participants said they did not receive job-specific skills training before leaving the program.

The most substantial change between the 1995-96 and 1997-98 training cohorts was an apparent decline in the percentage of youth receiving this training. Among secondary vocational-technical education students, the proportion reporting training in job-specific skills declined from 83 to 71 percent. Among JTPA Title II-C participants, the proportion declined from 81 to 68 percent.

Among program participants who received job-specific skills training, almost all said their job-specific skills improved, and in most cases, the participants said their skills improved a lot. (See Figure 5.) Adults are more likely than youth to report substantial improvements in skills. Among adults, the relatively low percentage of apprentices

FIGURE 4

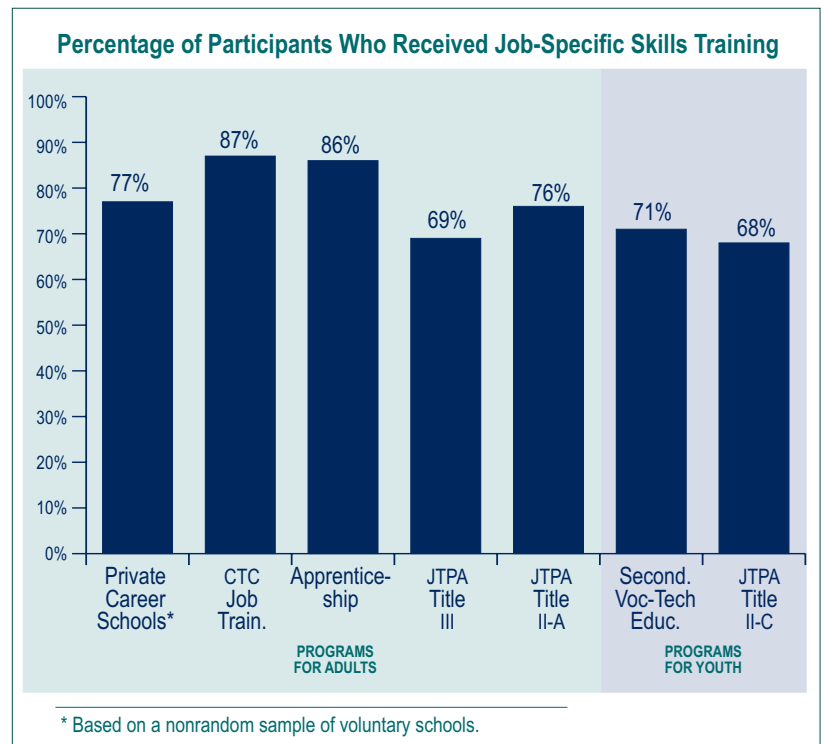
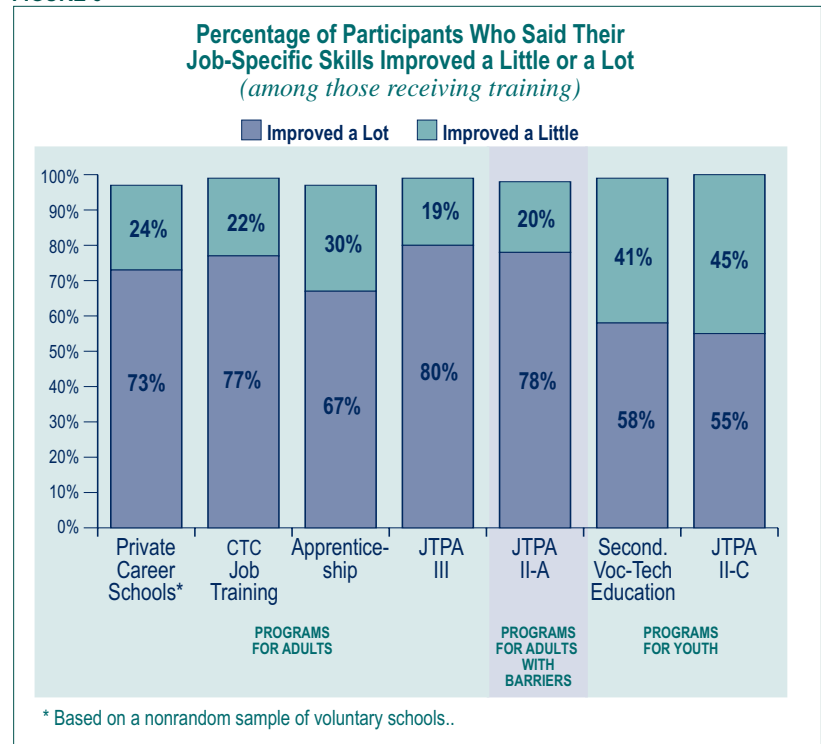


FIGURE 5



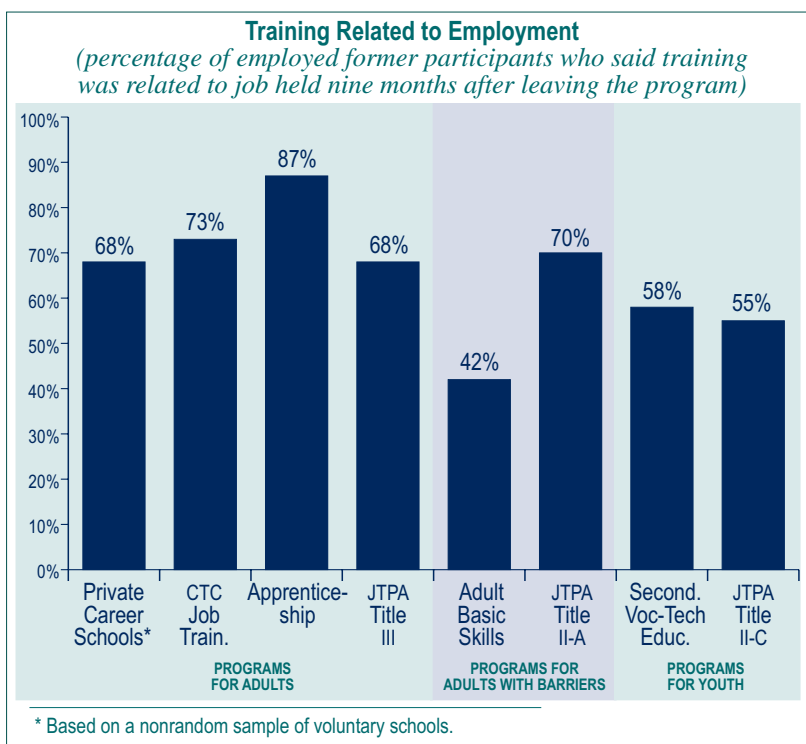
who said their job-specific skills improved a lot might reflect the extensive skills already held by many before entering the program. The proportion reporting their skills improved a lot increased between 1995-96 and 1997-98 for community and technical college job training students (increasing from 70 to 77 percent), JTPA Title III participants (74 to 80 percent), and Title II-A participants (65 to 78 percent).

There were gender differences in the types of training received by participants. For example, men were more likely to report training in the use of machinery. Women were more likely to report training in the use of computers.

Another measure of whether training provided participants with the right kinds of skills is whether the former participants believed their training was related to their postprogram employment. In most cases, a large majority of program participants indicated their training was related to the job that they held nine months after leaving the program. (See Figure 6.)

The program with relatively lower results for job-relatedness of training were Adult Basic Skills Education and the programs for youth. In the case of Adult Basic Skills Education, it may be more difficult for survey respondents to understand the relationship of basic skills instruction, as opposed to job-specific skills training, to their jobs. It also may be evidence of the need to more frequently provide adult basic skills instruction in a work context. The results for youth are lower than reported two years ago. The proportion of secondary vocational-technical students reporting job-relatedness of training declined from 70 percent among the 1995-96 cohort to 58 percent among the 1997-98 participants. The proportion declined from 71 to 55 percent among JTPA Title II-C participants.

FIGURE 6



Participant Satisfaction

Desired Outcome

Workforce development participants and their employers are satisfied with workforce development services and results.

The majority of participants were satisfied with their programs. Satisfaction levels—measured by averaging the percentage reporting they met their educational

objectives and the percentage satisfied with the overall quality of their programs—are high for all programs. (See Figure 7.) Satisfaction levels are similar to those reported by the 1995-96 program participants.

Although results vary by program, aspects of programs that tended to have the lowest participant satisfaction were support services. Most participants reported receiving the services they required. However, many participants in several programs reported an unmet need for job opening information and career or job counseling. Relatively few participants needed child care assistance. Among those that did, however, high proportions reported their needs were not met.

Employer Satisfaction

Desire Outcome

Workforce development participants and their employers are satisfied with workforce development services and results.

A majority of employers reported they were satisfied with the skills of new employees who had recently completed one of these programs. However, satisfaction levels were not as high as one would like. Employer satisfaction—measured by averaging the percentages satisfied with various basic, job-specific, and general workplace skills—does vary by program.² (See Figure 8.) Between 62 and 74 percent of employers, depending on the program, reported satisfaction.

² General workplace skills include teamwork, problem solving, communication, work habits, ability to accept supervision, and adaptability to change.

FIGURE 7

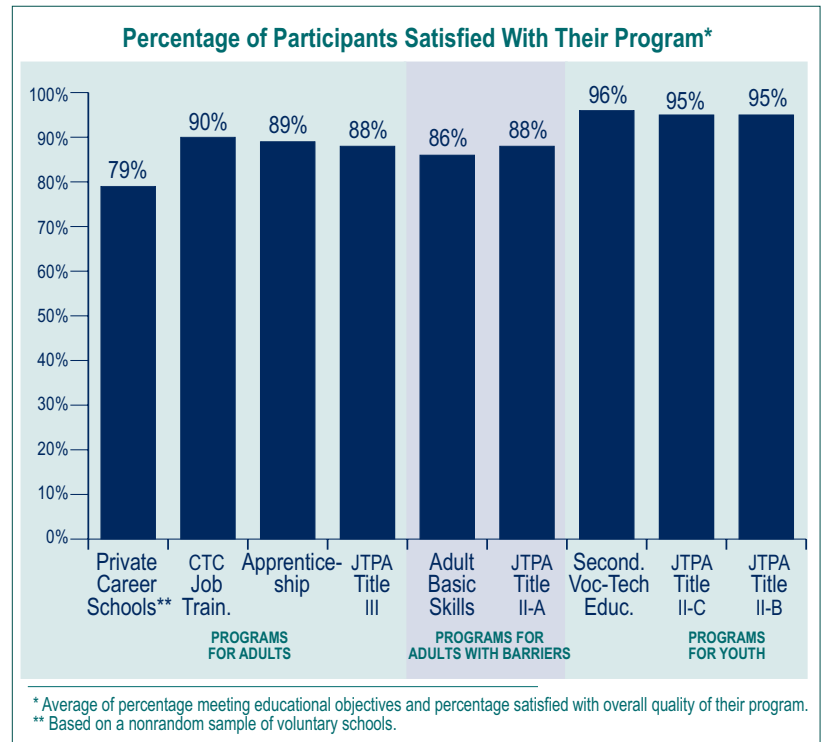
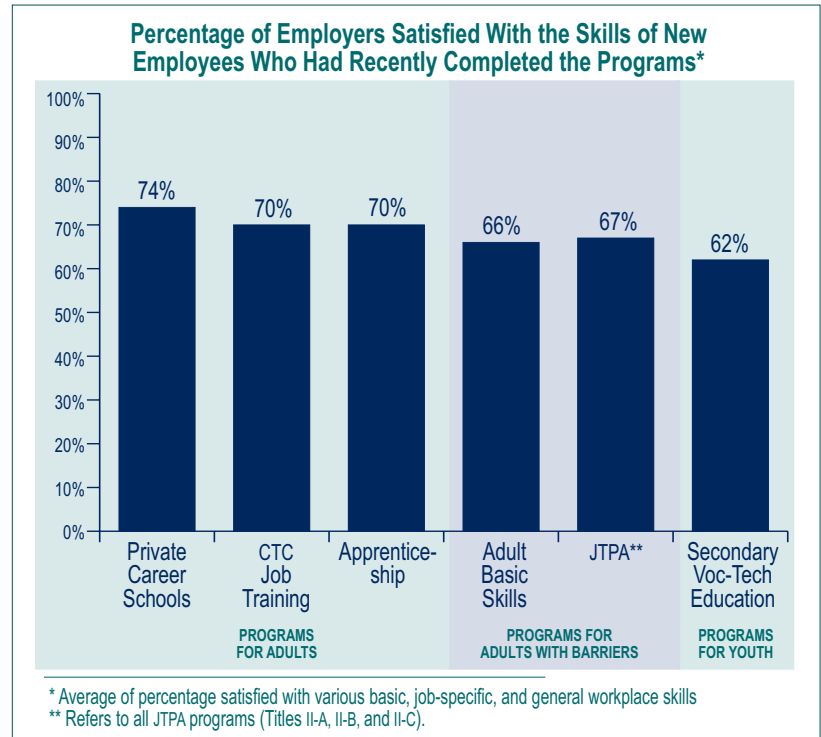


FIGURE 8



There were some changes between the results for the 1995-96 and 1997-98 participants. Employer satisfaction increased for adult basic skills participants (rising from 55 to 66 percent) and JTPA participants (59 to 67 percent).³ Employer satisfaction with the skills of secondary vocational-technical education students declined (from 70 to 62 percent).

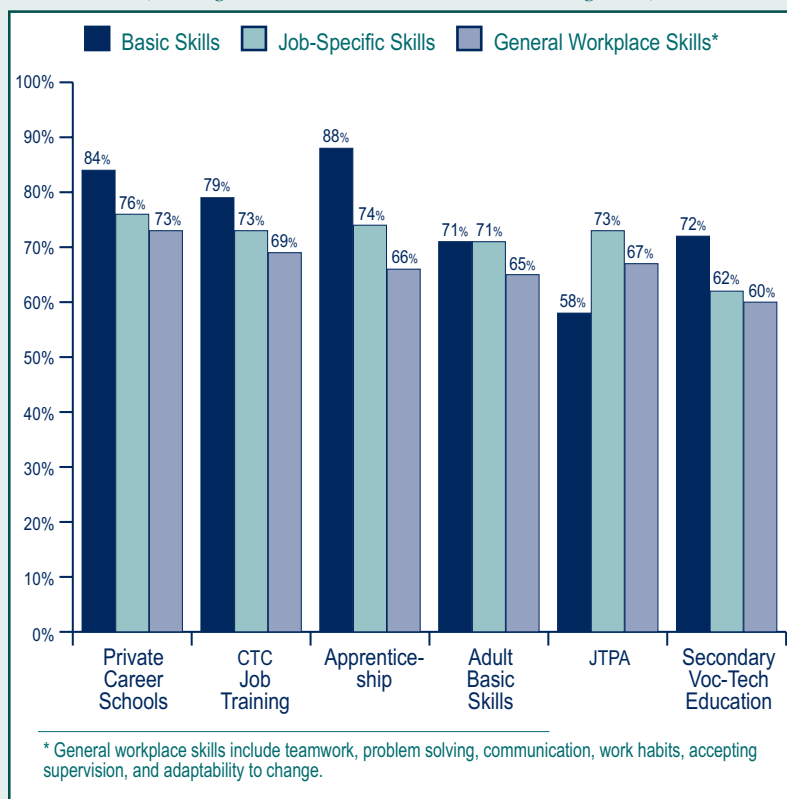
³ It was not possible to measure employer satisfaction for each JTPA program separately. These results refer to all JTPA participants (Titles II-A, II-B, II-C, and III) as a whole.

Employers tended to be most satisfied with the basic skills of new employees. (See Figure 9.) Among the basic skills, satisfaction was typically higher for reading skills and lower for math and writing. Employers were least satisfied with general workplace skills—teamwork, problem-solving skills, communication, work habits, acceptance of supervision, and adaptability to change.

Satisfaction levels for job-specific skills tended to fall between those for basic skills and general workplace skills. Roughly three quarters of employers were satisfied with the job-specific skills of new employees who recently completed a training program for adults. In other words, employers were not satisfied with the occupational skills of one in every four workers.

FIGURE 9

Percentage of Employers Satisfied With the Skills of New Employees Who Had Recently Completed the Program
(average across skills in the selected categories)



Employment

Desired Outcome

Washington's workforce finds employment opportunities.

According to survey results, most former program participants reported having a job during the third quarter (six to nine months) after they left their programs. (See Figure 10.) Employment rates vary across programs. They are highest for programs serving adults and, as expected, are lower for programs serving youth. When examining these results, one should be aware that many former participants in some programs continued their education during the year following their training. Based on computer

matches, 8 percent of JTPA Title II-A participants were enrolled in community and technical college programs during the third quarter after leaving JTPA training. During the third postprogram quarter, 26 percent of the former secondary vocational-technical education students were enrolled at a community and technical college, and 10 percent were enrolled in a 4-year institution. (Over two-thirds of those enrolled in community colleges were also working.)

We used Employment Security Department records to examine changes in employment rates between participants who left programs during 1995-96 and 1997-98.⁴ Employment rates increased substantially among participants in five programs—private career schools, community and technical college job training, adult basic skills education, and JTPA Titles II-A and II-C. (See Figure 11.) These increases reflect, at least in part, the tightening of the labor market. Employment rates for apprenticeship declined slightly, in part for reasons discussed in the next section. The employment rate also declined for secondary vocational-technical education.

⁴ Employment rates based on matches with Employment Security data are lower than those based on survey results. Employment Security records do not contain information on self-employment. Estimates also exclude employment in states that are not included in our matching process.

FIGURE 10

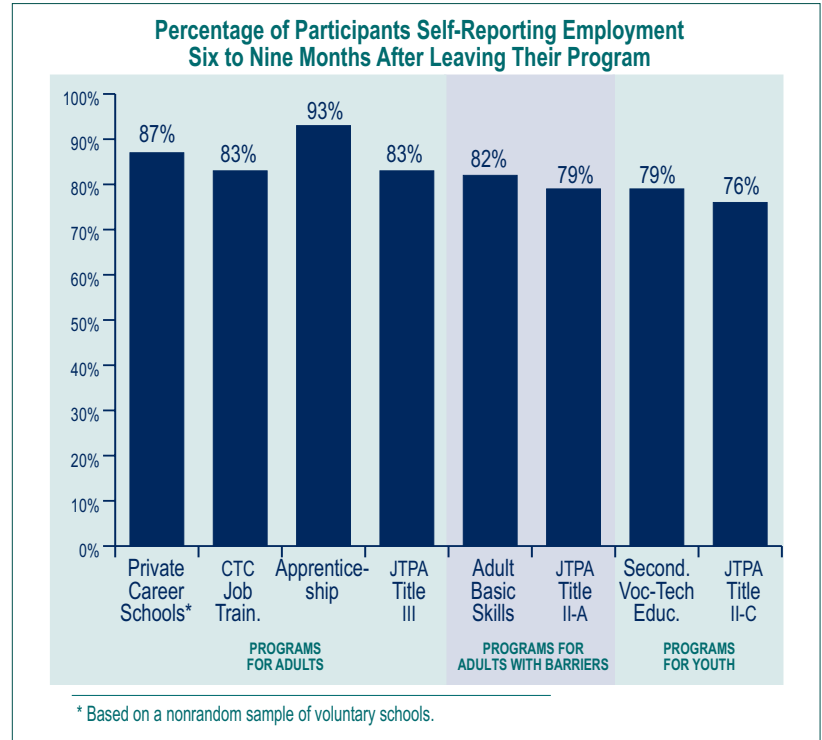
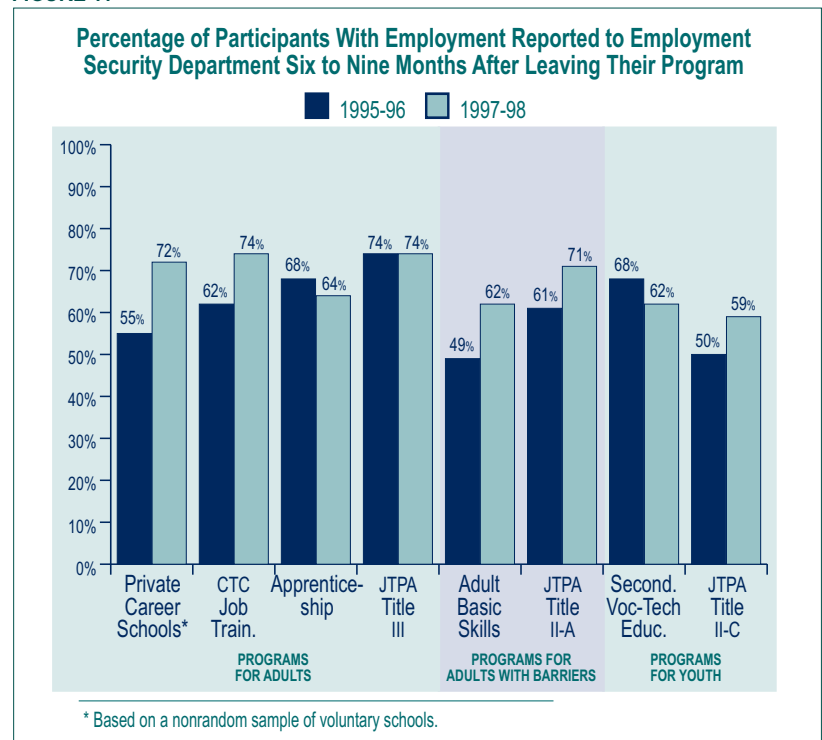


FIGURE 11



However, it is difficult to make comparisons over time for this program. Data for secondary vocational education are based on voluntary samples of school districts, and participating districts change over time. Also note that the total placement rate, which takes into account both employment and enrollment in further education, did not fall by as much as did employment alone.⁵

Earnings

Desired Outcome

Washington's workforce achieves a family-wage standard of living from earned income.

Postprogram earnings are very much affected by the characteristics of the participants who entered the program. Participants in programs serving youth had the lowest postprogram hourly wages and quarterly earnings, and participants in programs serving adults had the highest postprogram wages and earnings.⁶ (See Figure 12.)

Earnings and hourly wages were particularly high for individuals who participated in apprenticeship. In addition to the quality of the program, this finding reflects the length of the training and the labor market in their occupations and industries. JTPA Title III participants also had relatively high earnings and wages, reflecting the greater work experience of the program's participants.

In most programs, hourly wages and quarterly earnings were higher, even after controlling for inflation, than were found two years ago. For example, the median earnings of former community and technical college students increased by

FIGURE 12

Median Hourly Wages and Annualized Earnings Six to Nine Months After Leaving the Program				
Programs	Hourly Wages of 1997-98 Participants	Annualized Earnings of 1997-98 Participants	Percentage Change From 1995-96* WAGES EARNINGS	
<i>Adults</i>				
Private Career Schools**	\$8.92	\$15,612	3%	4%
Community and Technical College Job Training	\$10.83	\$19,600	8%	14%
Apprenticeship	\$16.59	\$26,792	-8%	-5%
JTPA Title III	\$12.07	\$22,580	-12%	-12%
<i>Adults With Barriers to Employment</i>				
Adult Basic Skills	\$8.47	\$15,056	10%	22%
JTPA Title II-A	\$8.78	\$14,568	12%	22%
<i>Youth</i>				
Secondary Voc-Tech Education	\$7.41	\$9,468	9%	7%
JTPA Title II-C	\$6.48	\$6,388	5%	6%
*These are changes in real earnings, i.e., after controlling for inflation. ** Based on a nonrandom sample of voluntary schools.				

⁵ Among students leaving school in 1995-96, 77 percent were either in employment reported to Employment Security or enrolled in a 2- or 4-year college during the third quarter after exit. Among students leaving in 1997-98, the rate was 74 percent.

⁶ It is not valid methodologically to subtract the wage levels in Figure 2 from those in Figure 12 to obtain a measure of pre-post changes in hourly wages.

14 percent. Earnings were 22 percent higher among participants in programs for adults with barriers to employment.

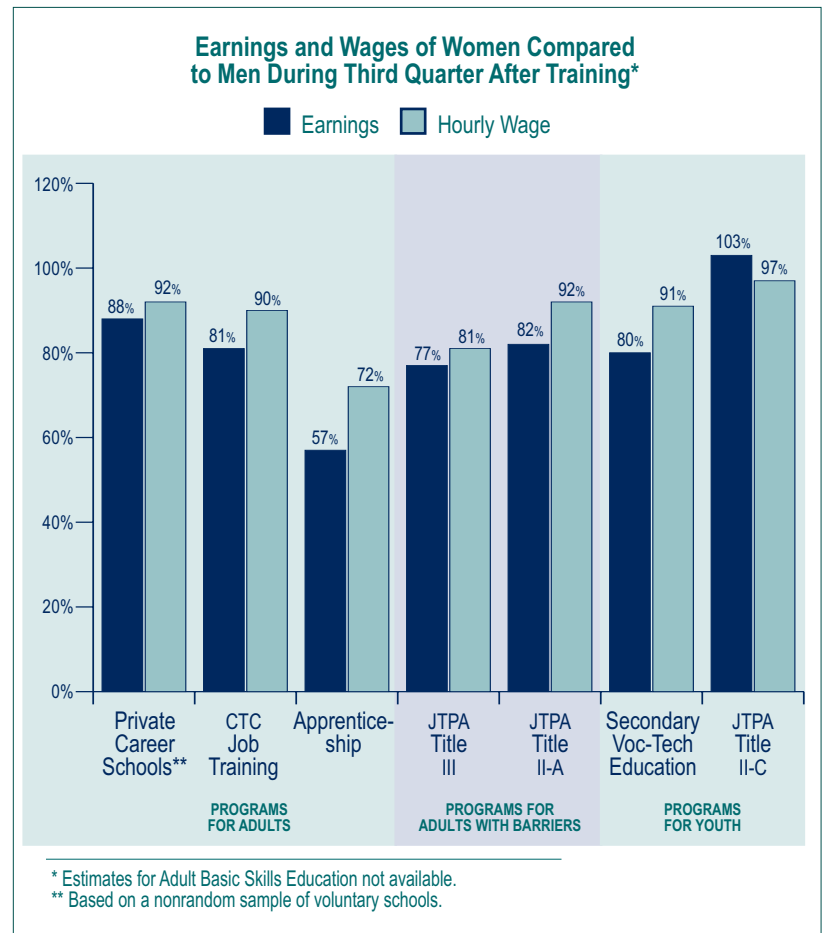
Among the 1997-98 JTPA Title III and apprenticeship participants, however, median wages and earnings were lower than reported two years ago. In the case of Title III, the decline is largely due to substantial changes in dislocated workers' industry of origin. A major portion of the 1995-96 participants were from the aerospace industry (38 percent), and a substantial proportion (31 percent) who returned to employment were in aerospace, where earnings are relatively high. Among the 1997-98 participants, less than 2 percent were originally employed in aerospace.

In the case of apprenticeship, the decline is associated with the declines in the completion rate and with the lower outcomes for those who do not complete their programs. Median earnings and wages for 1997-98 apprenticeship *completers* were almost the same, in constant dollars, as those *completers* in 1995-96. However, the apprenticeship completion rate dropped from 42 percent to 35 percent. In addition, those who dropped out prior to graduation spent less time in training, only 8 months instead of the 11 months of training received by dropouts in 1995-96. With fewer completions and shorter training for the noncompleters, chances for apprentices to enter the high-wage construction industry jobs appear to have been reduced. Among apprentices in the 1995-96 cohort, 48 percent worked in construction industry jobs in the third quarter after exit, and fewer than 25 percent

in the lower paying trade and services sectors. Among 1997-98 apprentices, only 43 percent were working in the construction industry 3 quarters after exit, and 32 percent were working in the trade and services sectors.

For most programs, postprogram earnings and hourly wages were lower for women than for men who participated in the same program. (See Figure 13.) Earnings also tended to be lower for people of color than for whites. Racial and ethnical

FIGURE 13



differences varied considerably among programs, although for many programs wages and earnings tended to be lower for Native Americans. These differences in postprogram wages and earnings by gender and race/ethnicity generally reflected differences in wages and earnings prior to program enrollment and differences in the overall labor market.

Employer-Provided Training

Training that employers offer or support for their own employees is a major part of the training that occurs in the state (and is defined in statute as part of the state training system). The Workforce Board estimates that employer expenditures on training are roughly equivalent to the amount of public expenditures on workforce development.

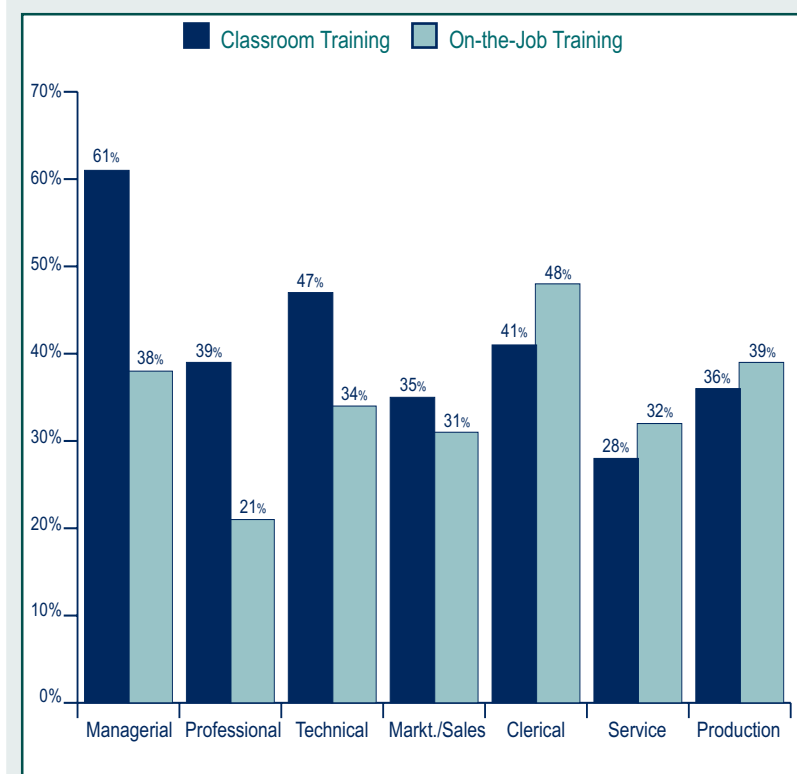
Based on our 1999 survey of Washington employers, almost half (49 percent) provided or paid for at least 4 hours of classroom training for some employees. Most employers (85 percent) provided on-the-job training within the last 12 months, and 26 percent had tuition reimbursement programs for their employees.

The extent of training has been increasing. Thirty-eight percent of firms said the percentage of their workers who received classroom training increased during the past three years, and the most frequently cited reason for the increase was technological change.

The 1999 employer survey found, as have previous state and national surveys, employers are more likely to provide classroom training to managerial than to nonmanagerial employees. On-the-job training, however, is provided most frequently to clerical workers and as frequently to production workers as to managers. (See Figure 14.)

FIGURE 14

Percentage of Employees Who Received Classroom and On-the-Job Training by Job Type
(at least 4 hours in the last 12 months)



There are three broad categories of classroom training—training in job-specific skills, workplace skills, and basic skills. Employers most frequently provided training in job-specific skills (training to upgrade or extend employee skills or to qualify them for a specific occupation). Forty-one percent of all firms provided such training. Thirty-three percent of employers provided training in workplace practices (such as diversity, sexual harassment, safety, and teamwork training). In contrast, only 6 percent of employers provided basic skills instruction (reading, writing, math, and English language skills). (See Figure 15.)

When employers wanted to improve the skills of their employees, most did not turn to the public sector to provide training. More frequently, they used their own personnel or private training vendors. (See Figure 16.) However, among firms who used a community and technical college for job-specific training, 48 percent were very satisfied, and 45 percent were somewhat satisfied with the training their employees received.

Employers who had never used community or technical colleges for employee training were asked what their main reasons for not doing so were. Most said they did not need community and technical college training because they used their own personnel. Of the employers, 51 percent said community and technical colleges did not offer the type of training their employees needed, 37 percent said the cost would be too high, and 34 percent said they were not aware of what training colleges offer.

FIGURE 15

Percentage of Employers Providing Classroom Training to any Employee
(at least 4 hours in the last 12 months)

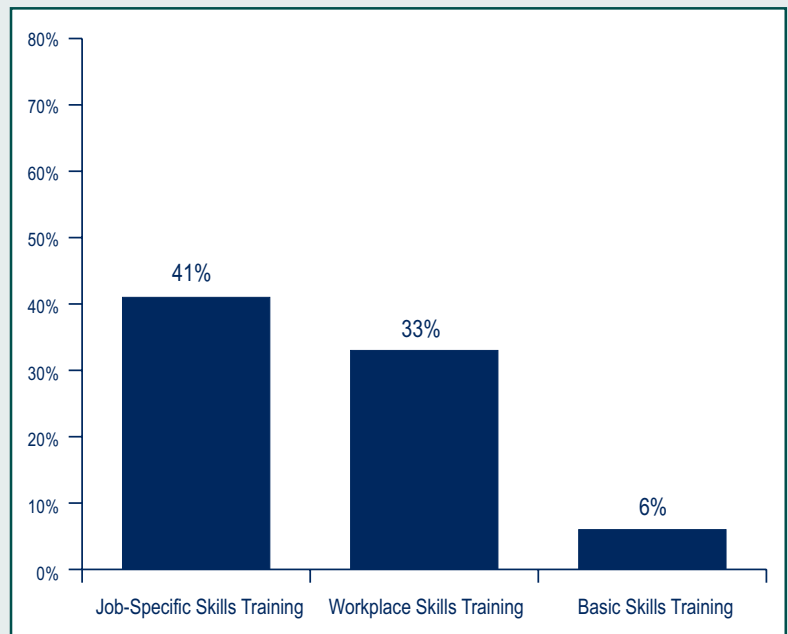
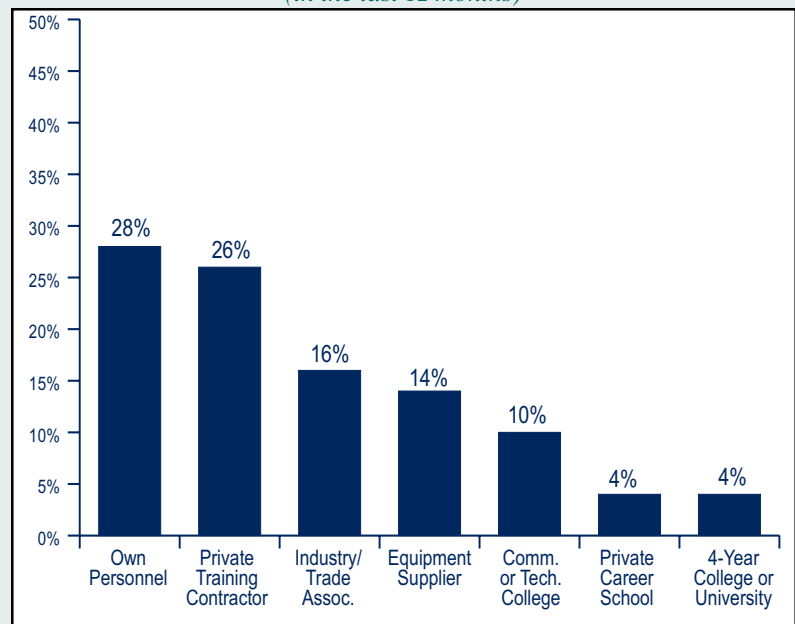


FIGURE 16

Percentage of Employers Using Various Training Providers for Job-Specific Classroom Training
(in the last 12 months)



Areas of Strength and Areas for Improvement

Several areas of strength stand out across the training system. Participant satisfaction was generally quite high. The majority of participants who received job-specific skills training reported their skills improved a lot. Most participants who required support services had their needs met. Employment rates, wages, and earning were, for the most part, higher than those found in our last evaluation.

Across the training system, there are other areas that are weaker and should be targeted for improvement. (See Figure 17.) Employer satisfaction levels are not as high as they should be. Employers are least satisfied with general workplace skills—teamwork, problem-solving skills, communication, work habits, acceptance of supervision, and adaptability to change. Also, employers were not satisfied with the occupational skills of one out of every four new workers who had completed one of the programs.

The support services that most often need to be improved are information about job openings and career counseling. Relatively few participants needed child care assistance. Among those that did, however, many reported their needs were not met.

Most programs also have more work to do if they are to eliminate gender differences in labor market outcomes. Prior to enrolling in their programs, most

women had lower wages and earnings than did men who enrolled in the same programs. After leaving their programs, most women were still paid less than men who had participated in the same programs. Such gender differences, however, do exist in the overall labor market.

Finally, training provided by employers to their own employees is also an important part of the training system. Employers should do more to provide training to production and service workers and basic skills instruction to employees with low literacy and math skills.

FIGURE 17

*Areas for Improvement***Programs for Adults**

COMMUNITY AND TECHNICAL COLLEGE TRAINING	PRIVATE CAREER SCHOOLS	APPRENTICESHIP	JTPA TITLE III DISLOCATED WORKERS
Employer Satisfaction	Employer Satisfaction	Employer Satisfaction	Employer Satisfaction
General Workplace Skills	General Workplace Skills	General Workplace Skills	General Workplace Skills
Job Opening Information	Job Opening Information	Child Care Assistance	Job Opening Information
Career Counseling	Career Counseling	Gender Differences	Career Counseling
Child Care Assistance	Gender Differences	Overall Completion Rate	Child Care Assistance
Gender Differences		People of Color Retention	Gender Differences
Native Americans			

Programs for Adults With Barriers to Employment

ADULT BASIC SKILLS EDUCATION	JTPA TITLE II-A
Employer Satisfaction	Employer Satisfaction
General Workplace Skills	General Workplace Skills
Communication Skills	Basic Skills
Support Services	Job Opening Information
Job Opening Information	Career Counseling
Career Counseling	Child Care Assistance
Child Care Assistance	Gender Differences
Relatedness to Work	Native Americans

Programs for Youth

SECONDARY VOCATIONAL-TECHNICAL EDUCATION	JTPA TITLE II-B SUMMER YOUTH	JTPA TITLE II-C YOUTH
Employer Satisfaction	Basic Skills	Employer Satisfaction
General Workplace Skills		General Workplace Skills
Basic Skills		Basic Skills
Job-Specific Skills		Child Care Assistance
Gender Differences		Targeting Higher Paying Jobs

